## **CLAIMS**

## What is claimed is:

| 1  | 1.            | A method of producing a critical dimension value comprising:                    |
|--|---------------|---|
| 2  |               | determining a stepper focus;  |
| 3  |               | combining said stepper focus with a critical dimension measurement; and         |
| 4  |               | generating said critical dimension value from said combining.                   |
| The start start of the start start of the start st | 2. comprises: | The method of claim 1, wherein said step of determining a stepper focus         |
| 7€<br>3€   |               | navigating to a stepper focus monitor target;                                   |
| 4  |               | performing a scanning electron microscope focusing; and                         |
| 5<br>1   |               | performing a final alignment of said target.                                    |
| ाईडे<br>पर्देके  |               |   |
| 1  | 3.            | The method of claim 2, wherein said step of determining a stepper focus further |
| 2  | comprises:    |   |
| 3  |               | acquiring a waveform data;  |
| ļ  |               | analyzing said waveform data; and   |
| j  |               | determining said stepper focus based on said analyzing.                         |

| 1  | 4.            | The method of claim 2, wherein said step of determining a stepper focus further   |
|--|---------------|---|
| 2  | comprises:    |   |
| 3  |               | acquiring an image data;  |
| 4  |               | analyzing said image data; and  |
| 5  |               | determining said stepper focus based on said analyzing.                           |
| 1  | 5.            |   |
| 1  |               | The method of claim 1, wherein said step of generating a critical dimension value |
|  | comprises:    |   |
|  |               | navigating to a critical dimension structure;                                     |
| The first of the state of the s |               | performing a scanning electron microscope focusing; and                           |
|  |               | performing a final alignment of said structure.                                   |
| Ilma Trade   |               |   |
| A de la  | 6.            | The method of claim 5, wherein said step of generating a critical dimension value |
|  | further compr | ises:   |
| 3  |               | acquiring a waveform data;  |
| ļ  |               | analyzing said waveform data; and   |
| í  |               | determining said critical dimension value based on said analyzing.                |

| 1              | 7.            | The method of claim 5, wherein said step of generating a critical dimension value |
|----------------|---------------|---|
| 2              | further compr | ises:   |
| 3              |               | acquiring an image data;  |
| 4              |               | analyzing said image data; and  |
| 5              |               | determining said critical dimension value based on said analyzing.                |
|                |               |   |
| 1              | 8.            | A method of producing a critical dimension value comprising:                      |
| 2              |               | generating a scanning electron microscope focus;                                  |
| 5.<br>1.1      |               | generating a waveform data based on output from said scanning electron            |
|                | microscope fo | cus;  |
|                |               | analyzing said waveform data to determine a critical dimension measurement;       |
| 6 <sup>-</sup> |               | analyzing said waveform data to determine a stepper focus parameter;              |
| 7              |               | combining said stepper focus parameter with said critical dimension               |
| 8              | measurement;  | and   |
| 9 <u>.</u>     |               | generating said critical dimension value from said combining.                     |
|                |               |   |
| 1              | 9.            | The method of claim 8, wherein said step of generating a waveform data further    |
| 2              | comprises:    |   |
| 3              |               | navigating to a critical dimension structure;                                     |
| 4              |               | performing a scanning electron microscope focusing;                               |
| 5              |               | performing a final alignment of said structure; and                               |

| 6           |                | acquiring said waveform data based on said scanning electron microscope         |
|-------------|----------------|---|
| 7           | focusing and s | said final alignment.   |
|             |                |   |
| 1           | 10.            | A method of producing a critical dimension value comprising:                    |
| 2           |                | generating a scanning electron microscope focus;                                |
| 3           |                | generating an image data based on output from said scanning electron microscope |
| 4           | focus;         |   |
| 5           |                | analyzing said image data to determine a critical dimension measurement;        |
| 6           |                | analyzing said image data to determine a stepper focus parameter;               |
| 10<br>7)    |                | combining said stepper focus parameter with said critical dimension             |
|             | measurement;   | and   |
| 9           |                | generating said critical dimension value from said combining.                   |
|             |                |   |
| ##<br>###   | 11.            | The method of claim 10, wherein said step of generating an image data further   |
| 1.)]<br>2.4 | comprises:     |   |
| 3           |                | navigating to a critical dimension structure;                                   |
| 4           |                | performing a scanning electron microscope focusing;                             |
| 5           |                | performing a final alignment of said structure; and                             |
| 6           |                | acquiring said image data based on said scanning electron microscope focusing   |

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and said final alignment.

| 1           | 12.        | A method of producing a critical dimension value comprising:                     |
|-------------|------------|--|
| 2           |            | determining a stepper focus;   |
| 3           |            | measuring a critical dimension measurement;                                      |
| 4 .         |            | combining said stepper focus with said critical dimension measurement; and       |
| 5           |            | generating said critical dimension value based on said combining.                |
|             |            |  |
| 1           | 13.        | The method of claim 12, wherein said step of determining a stepper focus         |
| 2           | comprises: |  |
| 3           |            | navigating to a stepper focus monitor target;                                    |
| 10<br>40    |            | performing a scanning electron microscope focusing; and                          |
|             |            | performing a final alignment of said target.                                     |
| ***         |            |  |
|             | 14.        | The method of claim 13, wherein said step of determining a stepper focus further |
| 2)<br>2)    | comprises: |  |
| <b>3</b> .4 |            | acquiring a waveform data;   |
| 4           |            | analyzing said waveform data; and  |
| 5           |            | determining said stepper focus based on said analyzing.                          |

| 1                      | 15.           | The method of claim 13, wherein said step of determining a stepper focus further |
|------------------------|---------------|--|
| 2                      | comprises:    |  |
| 3                      |               | acquiring an image data;   |
| 4                      |               | analyzing said image data; and   |
| 5                      |               | determining said stepper focus based on said analyzing.                          |
| 1                      | 16.           | The method of claim 12, wherein said step of generating a critical dimension     |
| 1                      |               |  |
| 2                      | value compris | es:  |
|                        |               | navigating to a critical dimension structure;                                    |
|                        |               | performing a scanning electron microscope focusing; and                          |
|                        |               | performing a final alignment of said structure.                                  |
| 11                     | 17.           | The method of claim 16, wherein said step of generating a critical dimension     |
| 2                      | value further | comprises:   |
| <b>13</b> <sup>1</sup> |               | acquiring a waveform data;   |
| 4                      |               | analyzing said waveform data; and  |
| 5                      |               | determining said critical dimension value based on said analyzing.               |
|                        |               |  |
| 1                      | 18.           | The method of claim 16, wherein said step of generating a critical dimension     |
| 2                      | value compris | ses:   |
| 3                      |               | acquiring an image data;   |
| 4                      |               | analyzing said image data; and   |
| 5                      |               | determining said critical dimension value based on said analyzing.               |
|                        |               |  |

| 1        | 19.             | A method of producing a critical dimension value comprising:   |
|----------|-----------------|--|
| 2        | C               | letermining a stepper focus;   |
| 3        | 1               | measuring a critical dimension measurement;  |
| 4        | (               | combining said stepper focus with said critical dimension measurement; and   |
| 5        | :               | generating said critical dimension value based on said combining;  |
| 6        |                 | wherein said step of determining a stepper focus further comprises:  |
| 7        |                 | navigating to a stepper focus monitor target;  |
| 8        |                 | performing a scanning electron microscope focusing at said target;   |
| Q.       |                 | performing a final alignment of said target based on said scanning electron  |
|          | microscope foo  | susing at said target;   |
|          | _               | acquiring a first data set from said scanning electron microscope focusing;  |
| 2        |                 | analyzing said first data set; and   |
| 3.       |                 | determining said stepper focus based on said analyzing;  |
| <b>4</b> |                 | wherein said step of generating a critical dimension further comprises:  |
| 5        |                 | navigating to a critical dimension structure;  |
| 16       |                 | performing a scanning electron microscope focusing at said critical  |
| 17       | dimension stru  | cture;   |
| 18       |                 | performing a final alignment of said critical dimension structure;   |
| 19       |                 | acquiring a second data set from said scanning electron microscope   |
| 20       | focusing at sai | d critical dimension structure;  |
| 21       | 100000          | analyzing said second data set; and  |
| 22       |                 | determining a critical dimension value based on said analyzing.  |
| <u> </u> |                 | determined a critical amount of a contract o |

| 1          | 20.             | A program storage device readable by machine, tangibly embodying a program of  |
|------------|-----------------|--|
| 2          | instructions ex | xecutable by the machine to perform a method of producing a critical dimension |
| 3          | value, said me  | ethod comprising:  |
| 4          |                 | determining a stepper focus;   |
| 5          |                 | combining said stepper focus with a critical dimension measurement; and        |
| 6          |                 | generating a critical dimension value from said combining.                     |
|            | 21.             | The program storage device of claim 20, wherein said step of determining a     |
|            | stepper focus   |  |
| 1 <b>3</b> |                 | navigating to a stepper focus monitor target;                                  |
| 4          |                 | performing a scanning electron microscope focusing; and                        |
|            |                 | performing a final alignment of said target.                                   |
|            |                 |  |
| Ť          | 22.             | The program storage device of claim 21, wherein said step of determining a     |
| 2          | stepper focus   | further comprises:   |
| 3          |                 | acquiring a waveform data;   |
| 4          |                 | analyzing said waveform data; and  |
| 5          |                 | determining said stepper focus based on said analyzing.                        |
| 1          | 23.             | The program storage device of claim 21, wherein said step of determining a     |
| 2          | stepper focus   | further comprises:   |

| 3   |               | acquiring an image data;   |
|---|---------------|--|
| 4   |               | analyzing said image data; and   |
| 5   |               | determining a stepper focus based on said analyzing.                               |
|   |               |  |
| 1   | 24.           | The program storage device of claim 20, wherein said step of generating a critical |
| 2   | dimension val | lue comprises:   |
| 3   |               | navigating to a critical dimension structure;                                      |
| 4   |               | performing a scanning electron microscope focusing; and                            |
| 4 清清 19 11 11 11 11 11 11 11 11 11 11 11 11 |               | performing a final alignment of said structure.                                    |
| To mentalism and                            | 25.           | The program storage device of claim 24, wherein said step of generating a critical |
| 2   | dimension val | lue further comprises:   |
| 3   |               | acquiring a waveform data;   |
| <b>A</b>                                    | <b>\</b>      | analyzing said waveform data; and  |
| 5   |               | determining said critical dimension value based on said analyzing.                 |
|   |               |  |
| 1   | 26.           | The program storage device of claim 24, wherein said step of generating a critical |
| 2   | dimension va  | lue further comprises:   |
| 3   |               | acquiring an image data;   |
| 4   |               | analyzing said image data; and   |
|   |               | determining said critical dimension value based on said analyzing.                 |
|   |               |  |